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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/991,731	11/26/2001	Gyu-Chull Doh	0808-0319P	5642

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EXAMINER
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LEWIS, TISHA D

ART UNIT	PAPER NUMBER
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3681

DATE MAILED: 03/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/991,731

Applicant(s)

DOH, GYU-CHULL

Examiner

TISHA D. LEWIS

Art Unit

3681

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 3 and 4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3 and 4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 7.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

The following is a response to the amendment received on February 13, 2003 which has been entered.

#### ***Information Disclosure Statement***

The information disclosure statement filed on January 31, 2003 has been acknowledged.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 3 and 4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. As to claim 1, lines 7-11, it is unclear as to how a shift is performed according to a throttle valve opening and vehicle speed not being more than predetermined values **detecting a turbine shaft revolution speed**. Also (lines 8-11 and 12-14), it is unclear as to how a shift is performed if a vehicle speed is not more than a predetermined value and then the shift is performed if the vehicle speed is more than a predetermined value (are these limitations pertaining to the value being within a range).

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee ('742) in view of Usuki et al ('826). As to claim 1, Lee discloses a shift control when shifting from a reverse range to a drive range including:

- detecting a shift lever position (16),

- detecting an engine speed (14, column 3, lines 18-20),

- detecting a throttle valve (11),

- and detecting a vehicle speed (12) which is well known in the art to correlate to the detected output speed (15) of the transmission,

wherein a shift to a first speed gear is performed when an idle state is detected (17, column 3, line 61-64), the output speed (No) is less than 200RPM, but is more than 50 RPM and the turbine speed (Nt) is less than zero. Lee also discloses a look up table for a throttle valve opening, but does not disclose a predetermined value for the throttle valve.

Usuki et al discloses a shift control when shifting from a neutral range to a drive range including: detecting an engine speed (8),

- detecting a throttle valve (11),

- and detecting a vehicle speed (14),

wherein a shift to a drive range is performed through a learning correction control if an idle switch is on (12), if the throttle valve opening is less than 5% and if the vehicle speed is zero km/h.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the shift control system of Lee with a predetermined throttle valve parameter stored in memory in view of Usuki et al to have additional engine operating conditions used to determine how the engine speed is co-operating with shifting from reverse range to drive range to reduce shifting shock.

As to claim 3, Lee discloses completing a shift to a drive range when an engine speed is synchronous with an output speed (15) which is usually out of the idle state. Lee also discloses a look up table for a throttle valve opening, but does not disclose a predetermined value for the throttle valve.

Usuki et al discloses completing a shift from a neutral range to a drive range through a learning correction control if the throttle valve opening is less than 5%.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the shift control system of Lee with a predetermined throttle valve parameter stored in memory in view of Usuki et al to have additional engine operating conditions used to determine how the engine speed is co-operating with shifting from reverse range to drive range to reduce shifting shock.

As to claim 4, Lee discloses completing a shift to a drive range when an engine speed is synchronous with an output speed (15) which is usually more than zero to prepare a shift to another gear range.

### ***Response to Arguments***

Applicant's arguments filed February 13, 2003 have been fully considered but they are not persuasive. The Lee reference does disclose a shift control from reverse to drive when a vehicle speed is greater than a predetermined speed (column 3, line 41) and the turbine speed is not more than a predetermined speed ( $N_t < 0$ , Figure 2).

### **FACSIMILE TRANSMISSION**

Submission of your response by facsimile transmission is encouraged. Group 3600's facsimile number is **(703) 305-3597**. Recognizing the fact that reducing cycle time in the processing and examination of patent applications will effectively increase a patent's term, it is to your benefit to submit responses by facsimile transmission whenever permissible. Such submission will place the response directly in our examining group's hands and will eliminate Post Office processing and delivery time as well as the PTO's mail room processing and delivery time. For a complete list of correspondence **not** permitted by facsimile transmission, see MPEP 502.01. In general, most responses and/or amendments not requiring a fee, as well as those requiring a fee but charging such fee to a deposit account, can be submitted by facsimile transmission. Responses requiring a fee which applicant is paying by check **should not be** submitting by facsimile transmission separately from the check.

Responses submitted by facsimile transmission should include a Certificate of Transmission (MPEP 512). The following is an example of the format the certification might take:

I hereby certify that this correspondence is being facsimile transmitted to  
the Patent and Trademark Office (Fax No. (703) 305-3597) on \_\_\_\_\_ (Date)

Typed or printed name of person signing this certificate:

\_\_\_\_\_

\_\_\_\_\_  
(Signature)

If your response is submitted by facsimile transmission, you are hereby reminded that the original should be retained as evidence of authenticity (37 CFR 1.4 and MPEP 502.02). Please do not separately mail the original or another copy unless required by the Patent and Trademark Office. Submission of the original response or a follow-up copy of the response after your response has been transmitted by facsimile will only cause further unnecessary delays in the processing of your application; duplicate responses where fees are charged to a deposit account may result in those fees being charged twice.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **TISHA D. LEWIS** whose telephone number is 703-305-0921. The examiner can normally be reached on **M-Thur 8 AM TO 3 PM**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **CHARLES A. MARMOR** can be reached on 703-308-0830. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3597 for regular communications and 703-305-3597 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-2168.

Application/Control Number: 09/991,731  
Art Unit: 3681

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Tdl  
*TOL*  
March 16, 2003

*Sherry Estremsky*  
SHERRY ESTREMSKY  
PRIMARY EXAMINER  
*AV3681 3-19-03*